

Compactus Sealed Hybrid Connector System ➤

Compactus Sealed Hybrid Connectors are robust, high-density, automotive-grade connectors that ensure superior design flexibility through the use of various modular circuit combinations. This versatility permits manufacturers to fit more power and signal transmission capability into a small space, enhancing efficiency.

FEATURES AND ADVANTAGES

Achieves high performance within the harsh engine environment

The connector offers a heat-resistant, vibration-resistant, sealed design that helps prevent inadvertent disconnections and failures due to moisture or dust ingress.

Provides designed-in flexibility for mounting in the dense engine space

Connectors are available with left or right flexible cable outlets, reducing design limitations.

Aids weight reduction

The connector is designed for thin wires which reduce weight and help lower emissions.

Number of Circuits	80, 128, 146, 186 (header); 48, 66, 72, 80, 114 (receptacle)
Terminal Sizes	0.50, 1.00, 2.80mm
Wire Sizes	0.30 to 2.50mm ²
Sealing	IP69K-rated grommet seal
Locking	Pre-lock independent secondary lock (ISL)
Operating Temperature	-40 to +120°C

Improves real estate optimization

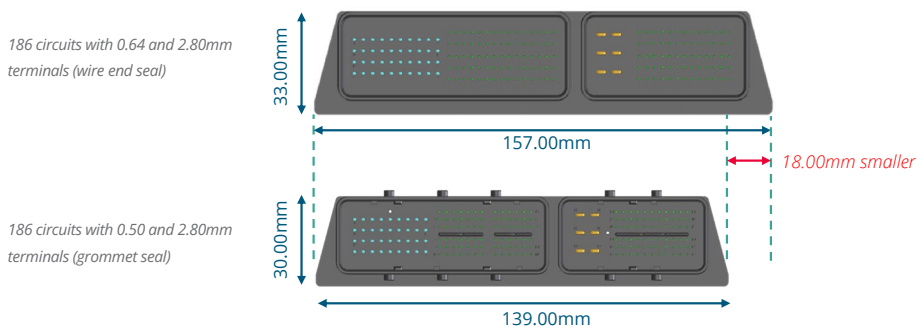
Short and long wire dress cover options permit close clearances and avoid wasting space in compact applications.

Reduces the interface area by up to 20% compared with conventional 0.64mm products

The 0.50mm terminal system saves space and helps prevent overcrowding in dense and compact applications.



Header Connector Size Comparison: 0.50 vs. 0.64mm



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MARKETS AND APPLICATIONS

Automotive

Automatic doors
 Battery packs
 Body electronics
 Chassis control unit modules
 DC-to-DC converters
 Electric motors
 Electric vehicle (EV) reducers
 Electronic control units
 Electronically controlled parking brakes
 Engine control unit modules
 Hybrid electric vehicle and EV inverters
 Illumination control systems
 Junction/fuse boxes
 Motor control units
 N-in-1 E-drive units
 Onboard chargers
 Power distribution units
 Suspension controllers
 Transmission controllers
 Vehicle control unit (VCU) modules
 Zonal control units

Commercial Vehicle

Construction/agriculture machinery
 Door control unit modules
 Motorcycles
 VCU modules



Construction/Agriculture
Machinery



Motor Control Units

SPECIFICATIONS

Reference Information

Packaging: Tray
 Header: Waterproof wire-to-board connector
 128, 146 or 186 circuits (two blocks)
 Panel-Mount Header: 80 circuits
 Female Connector:
 Housing-48, 66, 72, 80 or 114 circuits
 Terminal-0.50mm (signal), 1.00mm
 (medium power) or 2.80mm (power)
 Seal plug
 Dress cover (short or long)
 Wire Size:
 0.50mm-0.30 to 0.50mm²
 1.00mm-0.50 to 1.25mm²
 2.80mm-2.00 to 2.50mm²
 Mating Requirement: Keyed pair
 Designed in: Millimeters
 RoHS: Yes

Mechanical

Terminal Retention Force with ISL:
 Signal (0.50mm)-100N (min.)
 Power (1.00 and 2.80mm)-100N (min.)
 Mating Force (max.): 70N (lever operation)
 Unmating Force (max.): 70N (lever operation)

Electrical

Voltage (max.): 14V
 Current (max.): Refer to derating curve
 Insulation Resistance (min.): 100 Megohms

Physical

Housing: Polybutylene terephthalate (PBT)
 Housing Color: Black
 Contact: Tin
 Operating Temperature: -40 to +120°C
 Vibration Environment:
 Acceleration rate-9G (88m/sec²)
 Frequency-20 to 200 Hz
 Sealing Performance:
 Initial-50kPa (min.)
 After endurance test-30kPa (min.)
 High-pressure washing test-IP69K

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